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APPLICATION NO.	FILING DATE	FIRST-NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,911	12/13/2001	Kazuyoshi Tominaga	S004-4494	9599

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ADAMS & WILKS
ATTORNEYS AND COUNSELORS AT LAW
31st Floor
50 BROADWAY
NEW YORK, NY 10004

EXAMINER

DO, AN H

ART UNIT PAPER NUMBER

2853

DATE MAILED: 08/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/016,911

Applicant(s)

TOMINAGA, KAZUYOSHI

Examiner

An H. Do

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2003 and 30 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 7,8,10-14 and 26-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9 and 15-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-6, 9 and 15-25 in Paper No. 8 is acknowledged. The traversal is on the ground(s) that the non-elected claims possibly be withdrawn. This is not found persuasive because the two inventions are distinct from each other.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 10-14 and 26-30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 8.

3. This application contains claims 10-14 and 26-30 drawn to an invention nonelected with traverse in Paper No. 8. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Priority

4. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in JAPAN on 01 November 2001. It is noted, however, that applicant has not filed a certified copy of the JAPAN 2001-004062 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2 and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiraishi (JP 405229116A).

Hiraishi discloses in Figures 1-3 an ink jet head comprising the following claimed features:

-a substrate (1); a plurality of partition walls (5) disposed on a main surface of the substrate (1) and spaced apart at a preselected interval to form a plurality of channels (2) each for receiving ink;

-an ink chamber plate (10) connected to the substrate (1) to define, with the partition walls (5) an ink chamber (7) for supplying ink to the channels (2);

-a passage forming member connected to the substrate and having an ink supply passage (6) disposed in communication with the ink chamber (7) for supplying ink contained in an ink storage device to the ink chamber and at least one ink discharge passage (12) for discharging ink from the ink chamber (7);

-the ink discharge passage (12) extends along a longitudinal direction of the ink chamber (Figure 1);

-the passage forming member has a main surface through which the ink supply passage (6) and the ink discharge passage (12) extend and a side surface having a

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plurality of openings (Figure 1) each disposed in communication with a respective one of the ink supply passage and the ink discharge passage; and the side surface of the passage forming member is connected to the substrate (1) so that the openings are disposed in communication with the ink chamber(7);

- the at least one ink discharge passage comprises two discharge passages (12);

- the ink discharge passages (12) are disposed at opposite end portions of the passage forming member corresponding to opposite end portions of the ink chamber;

- each of the partition walls (5) having a pair of deformable side walls and a plurality of electrodes (Abstract) each connected to respective ones of the side walls of the partition walls and driven by a voltage signal to deform the side walls to vary the volume in the channels to thereby eject ink from the channels; and

- In Figure 2, a nozzle plate (8) connected to the substrate and having a plurality of nozzle openings (3) each disposed in communication with respective ones of the channels (2) so that when the electrodes are driven by a voltage signal ink is ejected from the channels (2) through the nozzle openings (3).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, 4, 6, 9, 21-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraishi (JP 405229116A) in view of Namekawa et al (US 6,109,740).

Hiraishi discloses the claimed invention except for reciting a check valve permitting only a flow from the ink chamber to outside, the communicating passage is sealed by securing a cap member to the passage forming member through an O-ring, absorbing means connected to the communicating passage.

Namekawa et al teaches a check valve (column 6, lines 39-42) permitting only a flow from the ink chamber to outside, the communicating passage is sealed by securing a cap member (Figure 12, element 124) to the passage forming member through an O-ring (column 13, lines 29-33), absorbing means (61A, 61B, 61C) connected to the communicating passage.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hiraishi's invention by Namekawa et al's check valve, sealing member and absorbing means for the purpose of controlling the flow of ink in the passage.

9. Claims 5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraishi (JP 405229116A) in view of Hirasawa et al (US 6,196,655).

Hiraishi discloses the claimed invention except for reciting a filter is provided between the ink supply passage and the ink chamber.

Hirasawa et al teaches in Figure 4 a filter (30) is provided between the ink supply passage (17) and the ink chamber (12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hiraishi's invention by Hirasawa et al's filter for the

purpose of removing foreign material such as bubbles or dust present in the supply path, as taught by Hirasawa et al in column 1, lines 58-64.

Response to Arguments

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An Do whose telephone number is (703) 308-0525. The examiner can normally be reached from Monday – Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 703-308-4896. The fax phone numbers for the organization where this application or proceeding is assigned are 703-

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305-3431 for regular communications and 703-305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



AD
August 10, 2003



Stephen D. Meier
Primary Examiner